



Maui DWS Snapshot

Community Meetings, January 2024

Water Conservation Program

Fixture Giveaways

- Rain barrels
- Ultra high efficiency toilets
- Low flow fixtures
- Pre-rinse spray valves
- Leak detection tablets, hose nozzles, toilet tank bags



Educational

- Xeriscaping guides
- Garden projects
- Annual poster & video contest
- Website with tips and tools
- Media campaigns

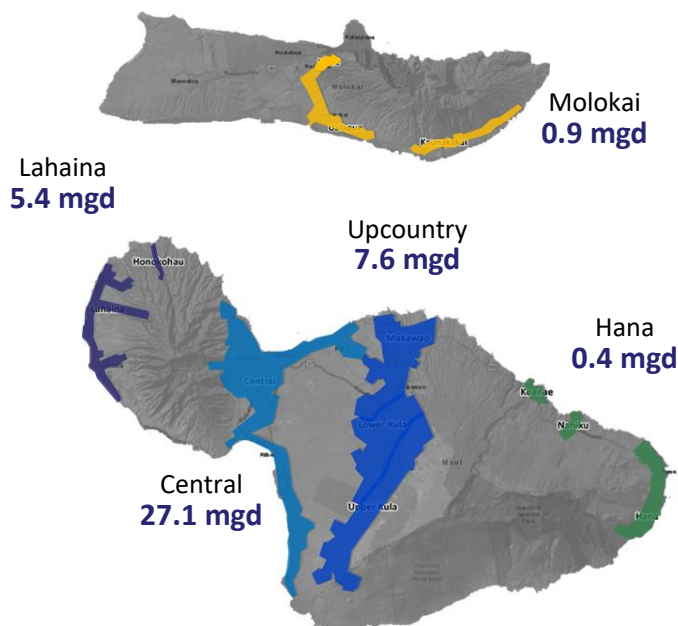
Codes

- Maui County codes & regulations
- Permitting gray water systems
- High consumption notices
- Tiered water rates to incentive conservation (new resort rates)

We must all work together to make a difference and conserve water where we can.

2022 Water Demand by System

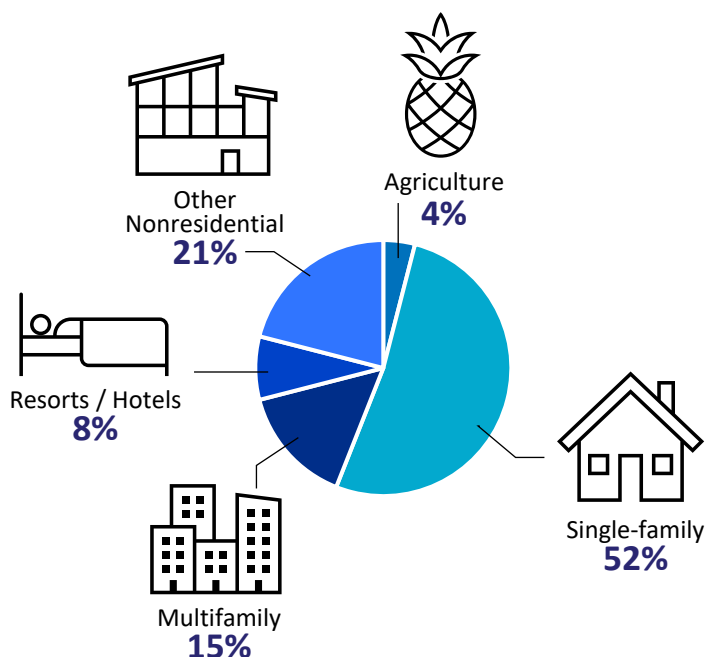
Total Production



*mgd = million gallons per day

2022 Water Demand by Type

All Systems, Percent of Total



By the numbers >> On average, Maui DWS supplies
41 million gallons of water each day to residents,
visitors, and businesses

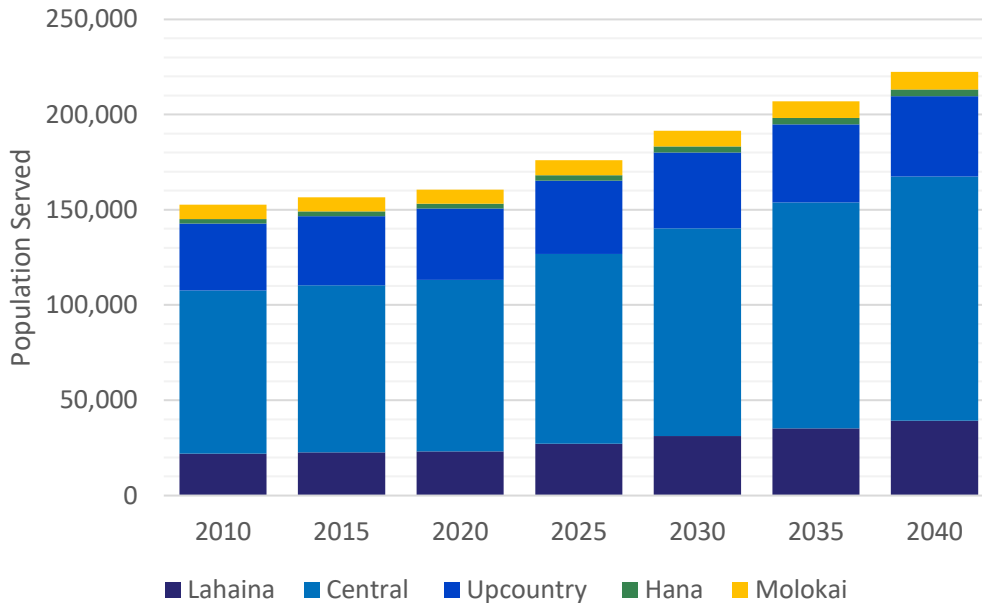


Future Population and Demand



Maui DWS Population Served

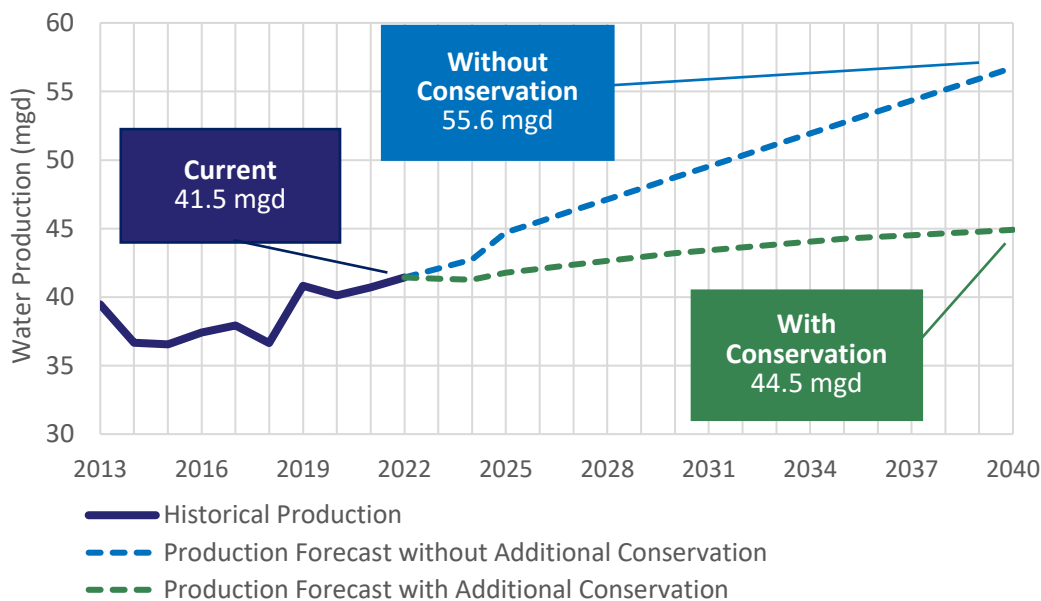
Historical and Forecasted



Maui DWS currently provides water to a permanent population of 167,000 people. Under the high growth scenario projected by Maui County (available in the 2014 Socioeconomic Report), the population served by Maui DWS could reach 222,000 by 2040.

Maui DWS Water Demand Forecast

With and Without Conservation



*mgd = million gallons per day

At current water use levels and under growth assumptions, Maui DWS new supply investment is estimated as 14 mgd. With an aggressive conservation goal targeting an overall 20% reduction in per capita use (excluding agriculture), growth could be achieved with a much lower investment and improved sustainability.







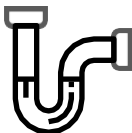






By the numbers >> An overall **20%** conservation goal will result in savings of **11 mgd, or 4 billion gallons** each year



Proposed Conservation Measures
















Community Meetings, January 2024



Category	Measure Name	Measure Description	Savings Potential
 AMI*	Use AMI to Target Savings	DWS customers with AMI meters installed have access to the EyeOnWater App, which provides near real-time information on household water consumption. Customer access to real-time usage data has been shown to reduce water consumption. This measure involves increased App participation and utility management of AMI data to improve efficiency. This measure is paired with an existing initiative to expand AMI installation.	
	High-efficiency Toilet Incentive	Provide customers with a rebate towards the replacement of inefficient toilets (using 3.5 gallons per flush or more) with an efficient model (using 1.28 gallons per flush or less). Savings can be up to 11,000 gallons per year per toilet!	
	Clothes Washer Incentive	Provide customers with a rebate towards the replacement of inefficient clothes washers that use 39 gallons per load or more with a more efficient model that uses 21 gallons per load or less. This can save over 5,000 gallons per year per clothes washer!	
	Government Building Retrofits	Install water efficient fixtures and landscaping at public facilities and in government buildings. Installations would include signage at facilities describing the benefits of water conservation. It is estimated that 1 building could save over 300,000 gallons per year!	
	New Development Fixture Ordinance	Maui County could pass an ordinance requiring WaterSense fixtures in all new residential and commercial development and redevelopment. Fixture types could include toilets, urinals, showerheads, faucets, washing machines, and dishwashers. WaterSense fixtures can reduce water usage by 20%!	
 PLUMBING FIXTURES	Low Income Plumbing Assistance	Customer leaks can go uncorrected at properties where owners are least able to pay the costs of repair. This program would provide financial support to low-income residents to replace inefficient plumbing fixtures and leaks.	
	Hotel/Resort Program	Provide hotels and resorts with a complimentary water audit, provided that the hotel or resort agree to replace inefficient equipment identified within an allotted time frame or schedule. DWS may offer a rebates for water efficient equipment replacements associated with the audit.	
	Laundry Facility Incentive	Provide commercial laundry facilities with a rebate towards the replacement of inefficient clothes washers with a more efficient model. This measure can save over 77,000 gallons per year per clothes washer!	
	Pre-Rinse Spray Valve Giveaway	Provide commercial kitchen facilities with pre-rinse spray valves that use 1.15 gallons of water per minutes or less. One new pre-rinse spray valve can save a commercial kitchen facility over 16,000 gallons of water each year, plus associated energy savings from reduction in hot water use!	
	Cooling Tower Ordinance	Cooling towers use potable water to remove heat from buildings for HVAC cooling, cold storage, and industrial purposes, and are generally the single largest point of water consumption for commercial buildings. Maui County could pass an ordinance that would ensure 5-10 cycles of concentration before blow down, with an included timeline for implementation for existing cooling towers (e.g., 5 years) and a requirement that all new development comply.	
 CII** PROGRAMS			

*AMI = Advanced Metering Infrastructure

**CII = Commercial, Institutional, Industrial

Category	Measure Name	Measure Description	Saving Potential
 IRRIGATION	Irrigation Watering Schedule	Outdoor irrigation often accounts for over half of a home or business' total water use. Many lawns can thrive on less than 1 inch of water per week under normal conditions. To promote water conservation and reduce overwatering, Maui County could pass an ordinance that would limit irrigation of turf grass to no more than three days per week. There are many success stories from places like Texas, Florida, and California. This ordinance could save over 4 million gallons of water each day for Maui DWS customers alone!	
	Smart Irrigation Controller Incentive	Provide customers with a rebate towards the purchase and installation of a smart irrigation controller. Smart irrigation controllers can be soil-moisture based or weather-based and work to assure landscapes are not over watered. This measure can save residential customers over 28,000 gallons of water each year and commercial customers over 86,000 gallons each year!	
	Xeriscape Improvement Incentive	Provide customers with a rebate to remove turf and replace it with low-water-use, native, micro-climate plants and landscapes. Depending on the amount of turf replaced, this measure can save residential customers over 165,000 gallons of water per year and commercial customers over 245,000 gallons per year!	
 EDUCATION	Recognition Program	Sponsor an annual awards program for residences, multifamily properties, and businesses that significantly reduce water use. Winners would receive a plaque or other form of recognition.	
	Public Education Programs	Continue current public education activities, such as demonstration gardens, annual poster and video contest, and website. Expand to promote new offerings. Message around Maui culture, protection of the natural environmental, and vulnerability of water supplies.	
 WASTE	Ordinance to Improve Reduce Waste	Pass an ordinance that would prohibit the waste of water, with specific actions defined. Examples of actions could include requirements for fixing water leaks in a timely fashion; restriction of irrigation during certain times of day; providing hotel customers the option of not having linens laundered daily; requirements for irrigation system equipment and plantings to be efficient; require new car washes and ornamental water features to recirculate water; and require pool covers under certain conditions.	
 AGRICULTURE	Promote Agriculture BMPs*	Promote agricultural BMPs that are practical, cost-effective actions that agricultural producers can take to conserve water and reduce the amount of fertilizers, animal waste, and other pollutants entering water resources. BMPs can include irrigation management to reduce water and nutrient losses.	
 RATES	Tiered Rate Structure Modification	Water rates must meet utility costs, but some features can improve customer accountability by better imposing cost impacts for high water usage. Re-evaluate Maui DWS tier structures to encourage more efficient water use practices. This measure would require a rate study.	
 WATER LOSS	Improved Water Loss Control	Implement enhanced program to find and repair leaks in the distribution system to reduce real water loss. Actions could include installation of data loggers and proactive leak detection. Leak repairs would be handled by existing crews.	

*BMPs = Best Management Practices

For more information, please visit the Maui County Department of Water Supply's website:

<https://waterresources.mauicounty.gov/153/Water-Conservation>



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